PH Series

PH1000U and PH1400U digital projectors

Powerful installation projector that delivers quality, larger-than-life images under virtually any operating condition to take on the most demanding integration projects. Perfect for large venues or high ambient lighting conditions.

FLEXIBILITY ENABLES PERFORMANCE

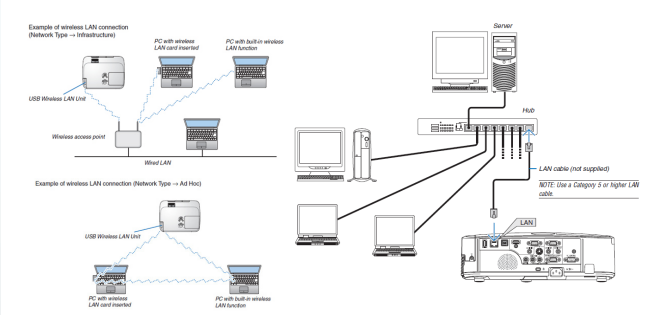
• High-performance video processing/scaling, utilizing the Hollywood Quality Video processor, is designed for computer signals as well as standard or high-definition video. The technology produces superior video processing using pixel-based, motion-adaptive de-interlacing to remove undesirable motion artifacts typical of interlaced signals. This processing creates life-like images in applications such as video conferencing.
• Powered by a unique 3-chip 0.96" DLP system with up to 14,000 lumens, these projectors feature a sleek, compact design with WUXGA resolution and dual UHP lamps
• Lens memory controls lens attributes (zoom, focus, shift) based on input resolution and input selection

INTEGRATED NETWORKING AND ASSET MANAGEMENT

• Integrated RJ45 connection for quick connection to the LAN (10/100 base-T capability)
• Optional high-speed wireless LAN IEEE 802.11b/g/n
• Desktop control allows you to securely transmit information wirelessly to the projector from a docking station or PC in another room
• Image Express Utility (IEU 2.0; compatible with Windows or Mac operating systems) dedicated projector software provides wired and wireless data transmission via peer-to-peer or over the network
  • Broadcast mode allows you to send information from one computer to several projectors
• Windows Network Projector function within Windows Vista connects directly to networked projectors without the need for additional proprietary software
• Windows Remote Desktop function allows you to control a networked computer by connecting a USB mouse and keyboard directly to the projector's USB input
• Windows Network Drive Function displays multimedia files (.jpeg, .bmp, .png, .mpeg2 or .wmv9) in the Windows shared folder on a local network using the Viewer function—all without bringing your PC into the conference room
• Windows Media Connection Function displays multimedia files (.mpeg2, .jpeg or .wmv9) stored on the Windows Media Connect server or a local network using the Viewer function—all without bringing your PC into the conference room

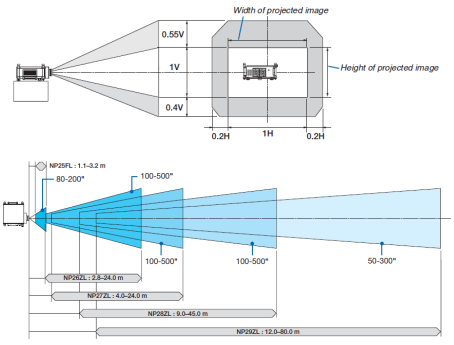
SECURITY FEATURES PROVIDE PEACE OF MIND

• Cabinet control lock setting enables user to deactivate buttons on cabinet to prevent unwanted changes to projector settings
• Logo lock restricts changes to logo saved in projector memory
• Password protection restricts unauthorized use of projector
• Email notification informs the system administrator when the lamp approaches the end of its useful life


Example of wireless LAN connection (Network Type → Infrastructure)
PC with wireless LAN card inserted
PC with built-in wireless LAN function
USB Wireless LAN Unit
Wireless access point
Wired LAN
Example of wireless LAN connection (Network Type → Ad Hoc)
Server
Hub
LAN cable (not supplied)
NOTE: Use a Category 5 or higher LAN cable
LAN

Lens Shift

Enjoy greater installation flexibility with +55%/-40% vertical lens shift and +/-20% horizontal lens shift. Ships lensless with a complete line of optional bayonet style lenses (5) for quick and easy exchange. Lens throw distances range from 2.6 to 179.8 feet.



DESIGNED WITH THE ENVIRONMENT IN MIND

- **Extended lamp life with ECO Mode™ technology** increases lamp life up to 3000 hours, while lowering power consumption
- **Power management** enables projector to automatically turn off when an incoming signal is not detected from any of the inputs
- **Auto Power On** via the RGB (15-pin) input connector when a signal is detected from a computer
- **Carbon savings meter** calculates the positive effects of operating the projector in ECO Mode, which is encouraged by an optional message at startup. A green ECO Mode button on the remote control makes the switch easy.
- **Quick start** (3 to 4 seconds) lets you begin presenting in seconds while quick shutdown (immediate power off with no cooling required after shutdown) ensures efficient energy usage
- **Sleep timer** can be set to automatically turn off the projector at set countdown times
- **Low power consumption** (0.5W in stand-by mode) minimizes energy costs
- **Direct power off** provides instantaneous shutdown of the projector

ECO MODE

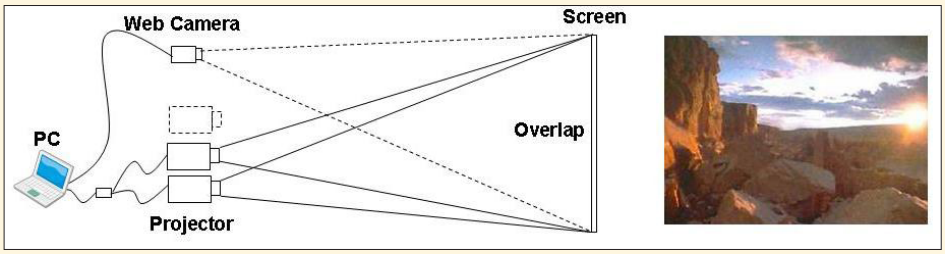
2000-hour filter life

NEC is committed to designing its products to provide long lifecycles. This commitment even extends to components within its products, including the improved filter. This virtually maintenance-free filter reduces the frequency at which cleaning is required, thereby decreasing your total cost of ownership. Filter replacement is only required at the time the lamp is replaced.

BUILT-IN SOFTWARE

Built-in stacking correction

The industry's first built-in stacking correction capabilities (up to four projectors) allows the projectors to boost an image's brightness up to 56,000 lumens, which is ideal for larger-sized screens and environments with heavy ambient light. This feature also prevents the complete loss of an image, which can happen when using only one projector.

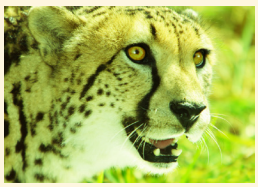


Built-in wall color correction presets

These provide for adaptive color tone correction to display properly on non-white surfaces.

On a green wall...

BEFORE auto wall correction



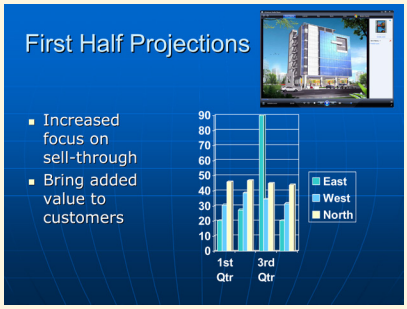
AFTER auto wall correction

DICOM SIM

DICOM Simulation enables users in medical environments to display accurate diagnostic images.

PIP/Side-by-Side

This function allows two sources to be displayed on the screen at one time in either a picture-in-picture or side-by-side configuration.



Edge blending

This function seamlessly blends multiple projected images to display a single high-resolution image.

GET CONNECTED WITH A WIDE SELECTION OF INPUTS

- **Dual computer inputs** ensure quick switching between presentations

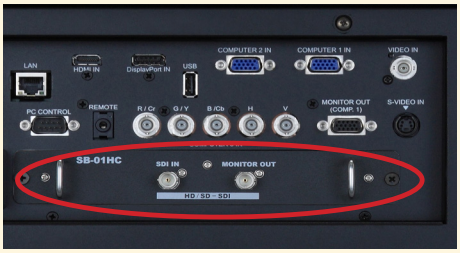
Remote control
Easy control from remote allows you to adjust lamp mode, aspect ratio, volume and image all with the touch of a button.

DisplayPort
This input provides PH Series models with expanded connectivity with advanced technology.

HDMI™ input
Among the PH Series' wide selection of inputs is an HDMI w/ HDCP for connecting to high-definition sources such as Blu-ray players, cable boxes, satellite receivers and personal computers.

HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE

Open Pluggable Specification (OPS)
The first industry-wide standardization in option slots simplifies installation, use and maintenance, while offering superior input flexibility.

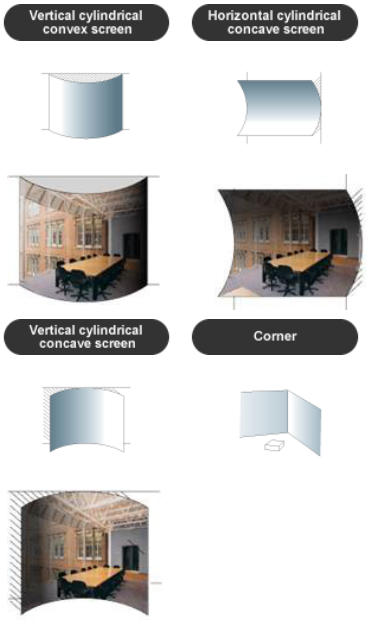


ADVANCED SOFTWARE FEATURES

Cornerstone
Enhanced keystone correction allows for horizontal, vertical and diagonal image correction for aligned images even when the projector is set up at an angle to the screen.

Virtual Remote™
Used via a network connection (wired/wireless), you can control the projector directly from a computer without the need for additional control cables.

Geometric Correction
Projecting an image isn't confined to a standard flat screen or wall with the NEC PH Series. Geometric correction allows these models to project an image on spheres, cylinders, corner angles and many more non-standard surfaces.



Specifications for PH1000U/PH1400U

Model	PH1000U	PH1400U
OPTICAL		
Display Technology	0.96” DMD	0.96” DMD
Light Output (lumens)	11,000 lumens	14,000 center-screen lumens (13,500 ANSI lumens)
Resolution		
Native	WUXGA 1920 x 1200	WUXGA 1920 x 1200
Maximum	WUXGA 1920 x 1200	WUXGA 1920 x 1200
Contrast Ratio (up to)	2000:1	2000:1
Lamp Type	(2) 400W AC	(2) 465W AC
Lamp Life (up to)	2000 hours normal / 2500 hours eco	2500 hours normal / 3000 hours eco
Screen Size (diagonal)	80 to 500 in. / 2 to 12.7m	80 to 500 in. / 2 to 12.7m
Throw Ratio		
NP25FL	0.67:1	0.67:1
NP26ZL	1.39 - 1.87:1	1.39 - 1.87:1
NP27ZL	1.87 - 2.56:1	1.87 - 2.56:1
NP28ZL	2.56 - 4.16:1	2.56 - 4.16:1
NP29ZL	4.16 - 6.96:1	4.16 - 6.96:1
Projection Distance	1.8 to 243 ft. / 0.55 to 74m	1.8 to 243 ft. / 0.55 to 74m
Projection Angle	2.7 to 11.2° tele / 4.4 to 15.4° wide	2.7 to 11.2° tele / 4.4 to 15.4° wide
Lens*		
Zoom	Power	Power
Focus	Power	Power
F-number, f-number		
NP25FL	F=2.5, f=14.6mm	F=2.5, f=14.6mm
NP26ZL	F=2.5, f=28.9 to 38.9mm	F=2.5, f=28.9 to 38.9mm
NP27ZL	F=2.5, f=39 to 53.4mm	F=2.5, f=39 to 53.4mm
NP28ZL	F=2.5, f=52.4 to 85.3mm	F=2.5, f=52.4 to 85.3mm
NP29ZL	F=2.5, f=84.9 to 142mm	F=2.5, f=84.9 to 142mm
Shift	Power: +55/-40% vertical, +/-20% horizontal	Power: +55/-40% vertical, +/-20% horizontal
Keystone Correction	+/- 35° horizontal, +/- 30° vertical	+/- 35° horizontal, +/- 30° vertical
SIGNAL COMPATIBILITY/ CONNECTIVITY		
Scan Rate		
Horizontal	15 – 108 kHz	15 – 108 kHz
Vertical	48 – 120 Hz	48 – 120 Hz
Supported Video Standards	NTSC, NTSC4.43, PAL, PAL-60, PAL-M, PAL-N, SECAM	NTSC, NTSC4.43, PAL, PAL-60, PAL-M, PAL-N, SECAM
SD/HD Video Signal Compatibility	480i, 480p, 576i, 576p, 720p, 1080i, 1080p	480i, 480p, 576i, 576p, 720p, 1080i, 1080p, 1080p120
PC Signal Compatibility	VGA, SVGA, XGA, SXGA, SXGA+, UXGA, WUXGA	VGA, SVGA, XGA, SXGA, SXGA+, UXGA, WUXGA
Macintosh Compatibility	Yes	Yes
Input/Output Terminals		
RGB1 (analog)	VGA 15-pin D-sub	VGA 15-pin D-sub
RGB2 (analog)	VGA 15-pin D-sub	VGA 15-pin D-sub
RGB3 (analog)	5-BNC	5-BNC
RGB4 (digital)	HDMI w/ HDCP	HDMI w/ HDCP
RGB5 (digital)	DisplayPort w/ HDCP	DisplayPort w/ HDCP
Video 1	RCA	RCA
Video 2	S-Video	S-Video
Option Slot	HD/SD-SDI	HD/SD-SDI
Monitor Out	VGA 15-pin D-sub	VGA 15-pin D-sub
1 Stereo	N/A	DVI-D (Dual Link)
External Control	RS-232, IR, Wired LAN, DDC/CI, USB, Wireless LAN (optional)	RS-232, IR, Wired LAN, DDC/CI, USB, Wireless LAN (optional)
Sync Compatibility	Separate Sync / Composite Sync / Sync on G	Separate Sync / Composite Sync / Sync on G
Networking	RJ-45 and Wireless LAN (optional)	RJ-45 and Wireless LAN (optional)
USB	Viewer	Viewer
ELECTRICAL		
Power Requirements	100-130V AC / 200-240V AC	200-240V AC
Input Current	11.2A / 5.4A	6.4A
Power Consumption (Normal/ECO Mode/Standby/ Standyby-Power Saving	1100W / 880W / 90W / 0.5W	1215W / 985W / 90W / 0.5W
MECHANICAL		
Optional Lenses	NP25FL, NP26ZL, NP27ZL, NP28ZL, NP29ZL	NP25FL, NP26ZL, NP27ZL, NP28ZL, NP29ZL
Installation Orientation	Floor/Front, Floor/Rear, Ceiling/Front, Ceiling/Rear	Floor/Front, Floor/Rear, Ceiling/Front, Ceiling/Rear
Dimensions (WxDxH)	22.7 x 9.3 x 22 in. / 578 x 235 x 558mm	22.7 x 9.3 x 22 in. / 578 x 235 x 558mm
Net Weight	87.1 lbs. / 39.5 kg	87.1 lbs. / 39.5 kg
Fan Noise	45dB normal / 43 dB eco	48dB normal / 44 dB eco
ENVIRONMENTAL		
Operating Temperature	32° – 104°F / 0° – 40°C	32° – 104°F / 0° – 40°C
Humidity	20-80% non-condensing	20-80% non-condensing
Storage	14° – 122°F / -10° – 60°C	14° – 122°F / -10° – 60°C
ACCESSORIES		
NP25FL	0.67:1 fixed short throw lens	
NP32ZL	0.90 - 1.1:1 zoom lens	
NP26ZL	1.39 - 1.87:1 zoom lens	
NP27ZL	1.87 - 2.56:1 zoom lens	
NP28ZL	2.56 - 4.16:1 zoom lens	
NP29ZL	4.16 - 6.96:1 zoom lens	
SB-01HC	SD/HD-SDI input card	
PHCase-01	ATA-certified case for shipping and secure storage	
RMT-PJ33	Replacement remote control	
NP01PW1	Replacement power cable	
RGBCBL-PJPX	Replacement RGB signal cable	
NP03FT	Replacement filter	
NP22LP	Replacement lamp for PH1000U	
NP25LP	Replacement lamp for PH1400U	
N8000-8830	NEC OPS PC with Intel Core i5, 320GB Hard Drive, Windows Embedded Standard 7	
NECEW2-I	Extends term of parts and labor warranty to 5 years	
NECEW1-I	Extends term of parts and labor warranty to 4 years	
ADVEXON1-I	Extends term of InstaCare service program to 2 years	
ADVEXON2-I	Extends term of InstaCare service program to 3 years	

* Lens does not ship with the projector.
Additional accessories are available, including screens, carts, mount accessories and replacement cables.
Visit www.necdisplay.com for details.

UNIQUE FEATURES

3D Reform™ allows you to square the image by adjusting horizontally, vertically or diagonally when the projector cannot be placed parallel or perpendicular to the screen

Advanced AccuBlend™ ensures detailed images when non-native resolution sources are connected to the projector

AutoSense™ automatically syncs with any computer signal and features one-touch image optimization

64-step image magnification with location control

Discreet source keys for source selection

Remote diagnostics enable the user to monitor and make adjustments to the projector remotely

Built-in HTTP page for control and monitoring over a LAN network. Email notification of error messages or lamp end-of-life can be sent to remote locations.

WARRANTY

Registered owners receive a 3-year parts and labor warranty including the first year of InstaCare. The lamp is covered for one year or 500 hours, whichever comes first. InstaCare provides the original owner one year of either limited 3 business day repair/return or next business day exchange.

IN THE BOX

Remote control, remote control cable, batteries, power cord, RGB signal cable, lens cap, user’s manual on CD-ROM, quick start guide, product registration card, wired and wireless network setup guide, lens anti-theft screw

ORDERING MODEL NUMBER

NP-PH1000U
NP-PH1400U

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